LasTec Articulator

Model 425EFDW

Owner’s Manual

Manual Part Number: Man-425EFDW

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SECTION 1  To The Owner

1.1 Read This Manual In Its Entirety BEFORE Operating The Articulator

This product complies with the required ANSI standards.

The information presented herein will prepare you to operate the Articulator in a safe and knowledgeable manner. Proper operation of the Articulator will provide a safer working environment, and promote higher quality, more efficient results.

Keep this manual at hand at all times for ready reference. The designed and tested safety of the Articulator is dependent upon its operation within the guidelines and limitations as outlined in this manual. Always adhere to all the safety rules presented in this manual.

1.2 Product Registration

Immediately record the model and serial numbers of your Articulator in the spaces provided below. These numbers can be found on the serial number plate which is permanently affixed to the mower. The serial number plate is located on the outside of the left upright of the center mower deck.

You should provide this information to your dealer any time you are ordering parts. This will assist them in supplying you the correct and most current parts available for your Articulator.

| Model Number: | Serial Number: |

You should now fill out the warranty registration form (located in the back of this section) and mail or fax it to LasTec. This form must be completed and returned to the factory within thirty (30) days of purchase in order to validate the warranty. Please do not hesitate!
1.3  **LasTec Product Warranty**

LasTec, A Division of Wood-Mizer Products, Inc. warrants its new products to be free of defects in material or workmanship. This warranty is applicable only for the normal service life expectancy of the machine or components, not to exceed twelve consecutive months from the date of delivery of the new LasTec product to the original purchaser.

LasTec, A Division of Wood-Mizer Products, Inc. warrants any new products supplied to a rental yard, or any other situation involving the rental, lease, or other temporary use of the product by a third party, to be free of defects in material or workmanship, not to exceed 90 days from the date of delivery of the new LasTec product to the original purchaser.

Under no circumstances will it cover any merchandise or components thereof, which, in the opinion of the company has been subjected to negligent handling, misuse, alteration, accident, or repairs made with any parts other than those obtainable through LasTec.

Warranty on all normal wear items such as bearings, belts, and bushings is 90 days from date of delivery. Any claim received after 90 days will not be accepted. All warranty items must be filed with your distributor. The distributor will then file the warranty claim with LasTec.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that in our judgement shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from date of failure to LasTec, routed through the dealer and distributor from whom the purchase was made, with transportation charges prepaid.

This warranty shall not be interpreted to render us liable for injury or damages of any kind or nature, direct, consequential, or contingent to person or property. This warranty does not extend to loss of any expense or loss incurred for labor, supplies, substitute machinery, rental or for any other reason.

There are no warranties, either expressed or implied, of merchantability or fitness for particular purpose intended or fitness for any other reason.

This warranty is subject to any existing conditions of supply which may directly affect our ability to obtain materials or manufacture replacement parts.

LasTec reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligations to owners of units previously sold.

No one is authorized to alter, modify or enlarge this warranty nor the exclusion, limitations and reservation.

All LasTec warranty work will be done at a distributors facility. FOB responsibility is the customers.
1.4 Servicing The Articulator

ALWAYS use only genuine LasTec parts when servicing the Articulator! Utilization of substitute parts will void the warranty and may cause unsafe operation or unsatisfactory performance of the Articulator!

The Articulator is carefully engineered and manufactured to provide safe, dependable, and satisfactory service. As with all other mechanical equipment, the Articulator requires routine inspection, cleaning and maintenance.

When servicing the Articulator, be sure to use only genuine LasTec parts. Utilization of substitute parts will not only void the warranty, but may also cause unsafe or unsatisfactory operation of the Articulator due to their substandard quality or incorrect application.

In order to handle all of your service needs, your authorized LasTec dealer stocks genuine LasTec parts, and has trained mechanics on hand.

Be sure to complete the following LasTec Warranty Registration Form and return to LasTec within 30 days of the purchase of your Articulator. This will aid you, LasTec, and your LasTec dealer in the warranting and servicing of your Articulator.
Lastec Warranty Registration Form

IMPORTANT! To validate the warranty, this registration form must be completed in full and returned to Lastec within fifteen (15) days of purchase!

Company Name: ____________________________

Company Contact: ____________________________

Mailing Address: ____________________________

Shipping Address: ____________________________

Phone: ____________________________

Fax: ____________________________

Authorized Company Representative Signature: ____________________________

I have read and understand the warranty policy and maintenance sections of the operators manual for the machine described below.

Articulator Model: ____________________________

Serial Number: ____________________________

Distributor/Dealer Purchased From: ____________________________

Date Purchased: ____________________________

Purchase Price: ____________________________

Customer Profile Information

Please check the box that most accurately describes your business:

- Golf Course
- Municipal
- Sod Farm
- Government
- Schools
- College
- Sports Complex
- Landscaping Company
- Light Agriculture
- Other

Total Acreage Cut: ____________________________

Average Operating Hours: ____________________________

How Did You Hear About Us?

Please help us to better serve you by completing the following survey information:

- Do you own an Articulator, and if so what model?
- How did you hear about Lastec?
- Who referred you to the Articulator?
- Who was the salesman that assisted you?

The Articulator

Please list the features and/or benefits which helped you to choose the Articulator:

- ______
- ______
- ______
- ______

Please check the box to your left if you would not allow Lastec to use your company’s name for marketing purposes.
SECTION 2 Safety Information

2.1 Warning Symbols

Following is a legend describing the warning symbols utilized throughout this manual, and the potential types of hazards which they indicate:

Caution!
This symbol indicates a potential equipment hazard. Failing to properly adhere to the instructions, rules, or procedures may result in equipment malfunction, damage, or destruction.

Warning!
This symbol indicates a potential personal injury hazard. Failing to properly adhere to the instructions, rules, or procedures may result in personal injury.

Danger!
This symbol indicates a potential serious injury or fatal injury hazard. Failing to properly adhere to the instructions, rules, or procedures may result in serious injury or even fatal injury.

The above illustrated symbols are displayed throughout this manual in order to indicate important safety information. When coming upon one of these symbols in this manual, be aware of a potential hazard being discussed in the accompanying paragraphs. Hazards such as damage to equipment, serious personal injury, or even fatal injury are possible, perhaps even likely, if the accompanying instructions or procedures are not heeded.

2.2 About This Manual

Safety instructions are important! Read all safety rules in this manual as well as all safety rules in any related equipment manuals!

The purpose of this manual is to assist you in properly and safely operating and maintaining the Articulator. Read and understand this entire manual before attempting to set-up, operate, adjust, perform any maintenance on, or store the Articulator. This manual provides essential information and instructions which will help you enjoy years of dependable performance from the Articulator.

The designed and tested safety of the Articulator is dependent upon its operation within the parameters and limitations explained in this manual. Be familiar with and follow all safety rules in this manual as well all safety rules for any related equipment.
Although these instructions have been compiled through extensive field experience and engineering data, some information presented herein may be general in nature due to unknown and/or varying operating conditions. However, these instructions, combined with your increasing experience with the Articulator, will enable you to develop procedures suitable to your particular cutting application.

The illustrations and data used in this manual were current at the time of printing, but the Articulator may vary slightly due to ongoing engineering changes. LasTec reserves the right to implement engineering and design changes to the Articulator as may be necessary without prior notification.

Throughout this manual, we make references to right and left directions. We determine right and left while sitting in the operator seat and facing in the direction of forward travel. Blade rotation is clockwise as viewed from the top of the Articulator.

2.3 Safety Guards And Covers

Some illustrations in this manual show the Articulator with safety covers removed in order to provide improved viewing of the particular components being discussed. This is for informational purposes only -- never operate the Articulator without all covers, shields, safety devices, and grass chute or mulching plate installed and secure!

Safety is a primary concern in the design and manufacture of all LasTec products. Unfortunately, our extensive efforts to provide safe equipment can be negated by a single careless act of an operator. In addition to the design and configuration of the Articulator, hazard control and accident prevention are also dependent upon the awareness, concern, prudence and proper training of all personnel involved in the operation, transportation, maintenance, and storage of the Articulator. The Best Safety Device is an informed, careful Operator! We ask you to be that kind of operator.
2.4 Preparational Safety Rules

Know your controls and how to stop the Articulator quickly in an emergency! Read this entire manual before attempting to operate the Articulator!

NEVER allow anyone to operate the Articulator without proper instruction! Any and all operators must be instructed in and capable of the safe operation of the Articulator, its attachments, and controls!

NEVER allow children to operate the Articulator!
NEVER allow children on or near the Articulator!
NEVER operate the Articulator when children are present!
ALWAYS clear area of all personnel before operating the Articulator!

- Never operate the Articulator when children are present.
- Always wear relatively tight and belted clothing to avoid entanglement in moving parts. Wear sturdy rough-soled work shoes, as well as protective equipment for the eyes, hands, hearing and head. Never operate the Articulator or related equipment in bare feet, sandals, or sneakers.
- Clear the cut area of any stones, branches or other debris that may be thrown and cause injury or damage.
- Verify that all safety decals are properly installed, visible, and intelligible.
- Always remove accumulated debris, fuel, or excess grease and oil from the tractor engine area to avoid a fire hazard.
- Verify that the Articulator is properly mounted, set up, adjusted, and in good operating condition.
- Always perform the pre-operation equipment inspection (Section 3) and the appropriate maintenance schedule (Section 5) before operating the Articulator.
2.5 Operational Safety Rules

- Never operate the Articulator when children are present.
- Operate only in daylight or good artificial light (min. 200 Lux).
- Be sure that all auxiliary equipment switches (blades, lights, etc.) are in the OFF position before attempting to start the engine.
- Be sure your tractor is equipped with a ROPS (Roll Over Protection System), and be sure to wear your seat belt.
- Never operate the Articulator without the grass chute or mulching plate installed and secure.
- Never operate the Articulator without all covers, shields, and safety devices installed and secure.
- Never permit any person other than the operator to ride or board the tractor or Articulator at any time. **Never allow riders!**
- Never allow anyone near the tractor or Articulator while operating. **Be sure that the area behind you is clear before operating in reverse!**
- Never allow anyone into the path of discharge.
- Never discharge in the direction of bystanders, vehicles, or buildings.
- Do not stop or start suddenly when going up or down a hill. Avoid operating on steep slopes.
- Do not mow in reverse unless absolutely necessary - and then only after careful observation of entire area behind the tractor and Articulator.
- Use extreme care and maintain minimum ground speed when transporting on a hillside or over rough ground, and when operating close to ditches, fences, or water.

ALWAYS work safely! Follow all safety rules! A careful operator is the best insurance against accidents! ALWAYS clear area of all personnel before operating the Articulator!

NEVER operate the Articulator without all safety covers properly installed and in good condition! ALWAYS stay well clear of all moving parts! ALWAYS stay clear of blades during operation!

NEVER allow children to operate the Articulator! NEVER allow children on or near the Articulator! NEVER operate the Articulator when children are present! ALWAYS clear area of all personnel before operating the Articulator!

Go to www.lastec.com for latest changes in this manual.
Safety Information

Maintenance Safety Rules

- Reduce speed on slopes and in sharp turns to minimize potential tipping or loss of control. Use caution when changing directions on slopes.
- Be alert for holes in the terrain as well as any other hidden hazard. Always drive slowly over rough ground.
- Disengage the blades, stop the engine, set the parking brake, and remove the key before dismounting the tractor or making any adjustments to the Articulator.
- Stop the tractor immediately upon striking any obstruction. Disengage the blades, turn off the engine, set the parking brake, remove the key, and inspect the tractor and Articulator for any damage. Always repair any damage before resuming operation of the Articulator.
- Never adjust the mower deck height or lift the deck into transport position while the blades are engaged.
- Never engage the blades with the mower decks raised into transport position.
- Never place your hands or feet under the Articulator while the engine is running.
- Stay well clear of any and all moving parts.
- Keep hands and feet away from the blades at all times during operation.
- Take all possible precautions when leaving the tractor and Articulator unattended: disengage the blades, turn off the engine, set the parking brake, and remove the key anytime you leave the tractor and Articulator unattended.
- If your tractor is equipped with headlights and hazard lights, always activate them whenever crossing or accessing any roadways, driveways, or parking lots. Watch for oncoming traffic.
- Handle fuel with caution - it is explosive! Always use approved fuel containers; never handle fuel near an open flame; never use fuel as a solvent; never fuel the tractor while the engine is running or hot; never fuel the Articulator indoors; always clean up any spilled fuel; never smoke around fuel.
- Do not allow extended running of tractor engine indoors - exhaust fumes are deadly.

2.6 Maintenance Safety Rules

ALWAYS disengage the blades, turn off the engine, set the parking brake, and remove the key before performing any service to, maintenance on, or adjustments to the tractor or Articulator! NEVER allow children on or around the Articulator!

- Never perform maintenance on the Articulator when children are present.
- Always perform the appropriate maintenance schedule(s) in a timely fashion.
- Never allow anyone near any operator controls while performing adjustments, ser-
vice or maintenance to the tractor or Articulator.

- Always use personal protection equipment such as eye, hand, head, and ear protection when performing any service or maintenance to the tractor or Articulator.

- Keep the tractor engine area free of accumulated debris, fuel, or excess grease and oil to reduce fire hazard.

- Keep the Articulator in good operating condition with all safety devices in place.

- Check the blades frequently. Verify that they are sharp, free of nicks and cracks, and securely fastened.

- Periodically tighten all bolts, nuts and screws and check that all fasteners are properly installed to ensure the tractor and Articulator are in safe operating condition.

- Upon completing any maintenance or service function, verify that all safety guards and devices are properly installed before operating the tractor or Articulator.

- Verify that all warning labels and decals are properly installed, visible, and legible.

- Always remove debris from the top and bottom of the Articulator after each use.

## 2.7 Storage Safety Rules

<table>
<thead>
<tr>
<th>Danger!</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NEVER</strong> allow the extended running of tractor engine indoors! Exhaust gases contain carbon monoxide, an odorless and deadly poison! <strong>NEVER</strong> allow children on or around the Articulator!</td>
</tr>
</tbody>
</table>

- Never store the Articulator in any area accessible by children.

- Never allow extended running of any engine indoors. Exhaust fumes are deadly.

- Never store tractor with fuel in the tank inside a building where fumes could reach an open flame or spark.

- Allow the tractor engine to cool before storing in an enclosed area.

- Remove all accumulated debris from the tractor, and both the top and bottom of the Articulator before storing.

- Sand chipped or scratched areas and re-paint them to prevent rust during storage.

- Lubricate all moving parts of the tractor and Articulator to prevent rust during storage.
SECTION 3 Initial Set-Up

3.1 Deck Drive Belts

The deck drive belts are located between the mounting plate for the hydraulic motor and the center mower deck, under the center deck belt cover. To access the belts, remove the wing bolt and lift the cover from the deck.

Check the belts for visible wear or damage. If either belt appears excessively worn, damaged, cracked, weathered, or otherwise appears to pose an unsuitable or unsafe operating condition, replace the belt.

Check the belts for proper tension. To achieve the proper belt tension adjust the hydraulic motor position so that 7lbs load on the midpoint of each belt will result in 3/16” deflection. If the adjustment slot located on hydraulic motor mount plate is positioned to its maximum stroke without adequately tightening the belts, you need to replace the belts.

If you are replacing a new belt and adjustment slot goes to its maximum or minimum stroke without adequately tightening the belts, it is likely you are have installed the wrong size belts. Contact your LasTec dealer for the proper belt(s) for your Articulator.

Clean entire deck area (under the belt cover) of all excess grease, oil, fuel, grass, or debris before operating the Articulator. This will help prevent damage to the equipment, fire hazard, and projectile hazards.

Be sure to replace the belt cover and hardware.
The deck belts are located under the belt covers on each deck. To access each belt, remove the belt cover hardware, and lift the belt cover from the mower deck.

The double-pulley idler belt tensioning system automatically tensions the belts on the mower decks, thus eliminating the need for manual belt tension adjustment.

Check the belts for visible wear or damage. If any belt appears excessively worn, damaged, cracked, weathered, or otherwise appears to pose an unsuitable or unsafe operating condition, replace the belt.

Check the belts for proper tension. If an idler arm pivots to its maximum stroke without adequately tightening the belt, you need to replace the belt. If the belt you are checking is new, and the idler arm pivots to its maximum stroke without adequately tightening the belt, it is likely you have installed the wrong size belt. Contact your LasTec dealer for the proper belt lengths for your Articulator.

If you are unable to install a new belt with the idler arm at its minimum stroke, it is likely you are installing the wrong size belt. Contact your LasTec dealer for proper belt lengths for your Articulator.

Be sure that each idler pulley tensioning spring is properly installed and in good condition. If for some reason this spring becomes loose, detached, or fatigued, the idler will not properly tension the belt.

Clean each entire deck area (under the belt covers) of all excess grease, oil, fuel, grass, or debris before operating the Articulator. This will help prevent damage to the equipment, fire hazard, and projectile hazards.

Be sure to replace all belt covers and hardware.
3.3 Blades

Never inspect, adjust, change, or perform any other maintenance to the blades while the engine is running!

Always turn off the blades, turn off the engine, remove the key, and set the parking brake before attempting to inspect, adjust, change, or perform any other maintenance to the blades!

Keep all personnel clear of all controls while inspecting, adjusting, changing, or performing maintenance to the blades!

The Model 425EFDW Articulator utilizes four individual 25” high-lift blades, located under each articulated mowing deck.

NEVER go near, or expose yourself or others in any way to the blades while the engine is running!

ALWAYS disengage the blades, turn off the tractor, remove the key, and set the parking brake before attempting to inspect, adjust, change or perform any other maintenance to the blades!

Keep all personnel clear of all controls while inspecting, adjusting, changing, or performing maintenance to the blades!

Inspect all blades for proper installation, orientation, tightness, sharpness, and overall condition. Be sure the lift fins are oriented to the top of the blades. Verify that the mount bolts are secure, the blades are sharp, and free of any nicks, cracks, or bends. Always replace any damaged, dull, or missing blades before operating the Articulator. The Recommended torque value for the blade bolts is 45 ft/lbs.

LasTec also offers optional low-lift blades and mulching blades for certain cutting applications. Contact your LasTec dealer for further information about optional blades available.

When the mulching plate is in the lowered position, it is in use. When the mulching plate is in the upper position and the chute is lowered, the mulching plate is not in use. Please refer to page 3-19 of the parts section in this manual.

To install the mulching plate for use, lift the grass chute to the upper most position and insert the mulching plate with the plate covering the discharge chute, into the two holes located between the chute and the deck. To install the mulching plate for storage, lower the grass chute to its lower most position and insert the mulching plate bolts into the holes.
provided with the plate in an upward position.

### 3.4 Mower Deck Height

![Caution]

**NEVER attempt to change the cutting deck height while the engine is running!**

The Model 425EFDW Articulator has a standard mower deck height range of 1” to 4 1/2”, in 1/4” increments. If you wish to change the mower deck height, do so before attempting to operate the Articulator.

The mower deck height adjustment lever has (1) permanently fixed spacer, and (16) adjustable spacers, each equal to 1/4” deck height adjustment. The deck is at its minimum height (1”) when only the fixed spacer is in front of the lever lock bracket. Each adjustable spacer placed in front of the lock bracket raises the mower deck height by 1/4”, up to 4 1/2”. The spacers which mark the 2”, 3”, and 4” height positions are knurled for quick identification. To adjust the mower deck height:

1. Lift the mower deck to transport position.

2. Turn the spacer locking knob on the height adjustment lever counter-clockwise until the spacers and lever are loose. Raise the lever from the locking bracket and adjust the spacers to the desired height setting. Each spacer placed in front of the lock plate will indicate an additional 1/4” of deck height. Please note that the center deck lever is positioned opposite from the lever located on the rocker tubes. The spacers will be adjusted opposite from the rocker spacers. When the desired deck height setting is reached, place the lever back into the locking bracket and turn the spacer locking knob clockwise until the spacers are tight. Avoid trapping fingers between the spacers and the lock plate during adjustment. Repeat process on the three remaining deck height adjusting rods.

3. Lower the mower deck to the ground.

4. Adjust the bolts in the push arm adjusting blocks so that there is a 1/4” gap between the head of the bolt and the Articulator mount plates. Tighten the hex nuts against the back of the blocks to secure the bolts in this position.

NEVER attempt to change the cutting deck height while the engine is running!
### 3.5 Mower Deck Height Calibration

**Warning!**

*NEVER make any adjustments to the deck height while the engine is running!*

*ALWAYS be sure to set the parking brake before making any adjustments to the Articulator!*

Occasionally, you will need to calibrate the mower deck height. Follow these procedures to calibrate:

1. Park the Articulator on a flat, level surface. Be sure to turn off the engine and set the parking brakes before making any adjustments to the Articulator.

2. Be sure both rear drive tires are properly inflated to 10 lb. PSI.

3. Be sure all gauge wheels are pointing forward.

4. Set the deck height adjustment arm spacers to 2”.

5. Measure the front of each deck from the bottom of the pan to the floor. They should all measure 2”, +/- 1/8”.

6. If any deck does not fall within this range, place 2” blocks underneath the front and back of each deck. Make sure that the 2” blocks are positioned on a flat surface. The 2” blocks need to be positioned at the closest point to each wheel.

7. Starting with the center deck first, turn the spacer adjustment rod clockwise or counterclockwise until the deck rest firmly on the 2” blocks. Clockwise will raise the deck. Counter-clockwise will lower the deck.

8. Continue with the other decks until all decks have been adjusted.

9. Remove the 2” blocks from under the deck.

10. Re-measure the fronts of all decks. They should all measure 2”, +/- 1/8”, from the bottom of the pan to the floor. If any deck does not fall within this range, repeat steps 7, 8 and 9.

11. Re-measure all decks, and repeat adjustment procedures if necessary.

### 3.6 Gauge Wheels

Verify proper function of all mower deck gauge wheels. The wheels should turn freely without any side-to-side motion, and be free of debris. Clean every 50 hours, adjust after first 8 hours of operation then every 100 hours of operation. Replace the gauge wheels as needed.
Check that each wheel swivels freely in the shaft pivot collar, and the bushings are in good condition. If any wheel does not swivel freely, clean and grease the shaft collar assembly. Replace the bushings if necessary.

Refill or replace any low or flat tires. Check the Specifications Chart for proper tire pressure.

### 3.7 General

Verify that all warning decals are in place, visible and legible.

Verify that all covers and safety devices are properly installed and secure.

Check that the discharge chute is clear of debris, properly mounted, and in good condition.

Inspect entire Articulator for loose or entangled parts, debris, obstructions, neglected tools, or any other possible safety hazards, equipment hazards or projectile hazards.
3.8 Pre-Operation Equipment Inspection Checklist

Perform the following equipment inspection prior to each operation of the Articulator.

- With the tractor and Articulator parked on level ground, verify that the Articulator is properly mounted to the tractor and secure.
- Check the deck drive belt and idler tension spring for proper installation, tension and condition.
- Clean the entire center deck area (including under the belt cover) of all grease, oil, fuel, grass, or debris.
- Check all deck belts and idler tension springs for proper installation, tension and condition.
- Clean each entire deck area (including under the belt covers) of all grease, oil, fuel, grass, or debris.
- Inspect all blades for proper installation, orientation, tightness, sharpness, and overall condition.
- Set the mower deck height to the desired level.
- Verify proper function of all gauge wheels.
- Verify that all warning decals are in place, visible and legible.
- Verify that all covers and safety devices are properly installed and secure.
- Check that the discharge chute is clear of debris, properly mounted, and in good condition.
- Inspect entire Articulator for loose or entangled parts, debris, obstructions, or neglected tools.
- Perform all safety, set-up, and pre-operation procedures listed in your tractor manual.
- Complete the appropriate maintenance checklist (section 5).

Go to www.lastec.com for latest changes in this manual.
SECTION 4  Operating Procedures

4.1  Transporting The Articulator

While engaging the safety latches, be sure to keep hands and feet clear of any pinch points. In the event of a possible hydraulic failure the mower deck could lower suddenly.

The Model 425EFDW Articulator can easily be lifted and transported by the tractor. To engage the safety chains simply lift the arms to their maximum height and lock into position by inserting the pins through the chain link and the latching plates. The chains are located on the front of the deck latch mount bar. Raise the left wing deck to the full up position and insert the clevis pin into the half moon plates located on the deck lift arm. Lower the arm so that the full weight of the wing deck is resting on the clevis pin. The clevis pin used in this application is located above the wing deck cylinder. This will allow for easy and safe transport over curbs and other obstructions, as well as extending the overall life of the Articulator. Review the tractor manual for proper lift arm operation.

- Complete the Initial Set-Up section of this manual BEFORE attempting to operate the Articulator.
- Lift the Articulator into transport position before traveling.
- Do not make quick stops or starts when transporting the Articulator. Always wear your seat belt when transporting or operating the Articulator.
- Never engage the blades while the Articulator is in transport position. Never lift the mower deck while the blades are engaged.
- When transporting the articulator on a truck, or trailer, lower the deck to its lowest position.

4.2  Preparation For Cutting

NEVER attempt to operate the Articulator until you have read and understand this manual in its entirety, as well as the manual supplied with your tractor!

ALWAYS perform the pre-operation equipment inspection before attempting to operate the Articulator!
ALWAYS perform the appropriate maintenance schedule(s) before attempting to operate the Articulator!
Operating Procedures

Preparation For Cutting

NEVER operate the Articulator without all covers, shields, safety devices, and grass chute or mulching plate installed and secure!

ALWAYS follow all safety rules stated in this manual, as well as the manual supplied with your tractor!
A well-informed, safety-conscience operator is the best safeguard against accident or injury!

NEVER allow extended running of any engine indoors! Exhaust gasses contain carbon monoxide, an odorless and deadly poison!

The Articulator is intended to be used specifically for finish mowing applications. One of the unique benefits of the Articulator’s cutting system is its ability to float over contours that are impossible for other wide-area mowers to cut accurately. The Articulator also offers a high level of maneuverability, including the ability to cut in reverse.

Although the Articulator is an industrial quality mower, do not attempt to use it to cut extremely long grass or areas heavy with brush or debris.

Upon completion of reading and understanding this manual in its entirety, reading and understanding your tractor manual in its entirety, completing the pre-operation inspection checklist, and performing the appropriate maintenance schedule(s), you are ready to begin operating the Articulator.

- Complete the Initial Set-Up section of this manual BEFORE attempting to operate the Articulator.
- After transport to the cut site, release the service safety latches and lower the Articulator into cutting position.
- Important: Lower the deck lift cylinder completely.
- Be sure the Articulator is not positioned over any debris or loose objects.
- Be sure there are no people near the Articulator, especially in the path of discharge.
- Shift the tractor into neutral, and keep the tractor on a low RPM setting.
- If there is any belt squeal, excessive vibration, or any indication of obstructions or debris in the blades, disengage the hydraulic motor at once. Check and eliminate problem before continuing.
- If the Articulator appears to be operating correctly, slowly increase the tractor idle until the Hydraulic motor is operating at the tractor manufacturer’s recommended operating RPM. DO NOT EXCEED THIS RPM DURING OPERATION OF THE
ARTICULATOR.

- Never operate the Articulator without all covers, shields, safety devices, and grass chute or mulching plate installed and secure.

### 4.3 Ground Speed

Excessive ground speed over rough terrain can cause structural stress and damage to the Articulator!

ALWAYS drive cautiously and reduce ground speed when transversing rough or severe terrain!

Always adhere to the tractor manufacturer’s recommended ground speed range when operating the Articulator. Your speed may vary within this range as your cutting conditions vary.

Excessive ground speed while traveling over rough terrain can cause the Articulator to bounce excessively, which in turn increases the stress on its structure and the likelihood of damage to the machine. Thus, while a higher ground speed is acceptable for wide, open, flat areas, a slower ground speed is required for rough or contoured areas.

Do not make quick starts or stops when transporting or operating the Articulator. Always wear your seatbelt.

### 4.4 Cutting In Reverse

ALWAYS check to be sure that the area behind you is clear of people or obstacles before backing the tractor and Articulator!

Be sure entire area around the tractor and Articulator are clear of people or obstructions before traveling in reverse.

If you are not familiar with backing techniques, we recommend practice in an open area to develop the required skills before operating the Articulator.
4.5 Cutting Severe Contours

The Articulator cuts contours areas well, producing a quality of cut which rivals that of a single push mower.

The basic rule of thumb to use when judging the ability of the Articulator to handle a contoured area is to cut the area with a 25” push mower set at the same height as the Articulator. If the mower cuts without scalping, the Articulator should be able to handle the area.

However, there are important guidelines to follow when cutting severe contours or side hills:

- Never exceed the tractor manufacturer’s maximum side slope ratings.
- Always use tractors with a ROPS.
- Always wear your seatbelt.

4.6 Cutting Wet Grass

Operation of the Articulator is not adversely affected by wet cutting conditions. However, a slower ground speed is recommended for improved grass discharge and reduced turf tear.
SECTION 5  Maintenance

Proper maintenance of the Articulator is important! ALWAYS perform the appropriate Maintenance checklist at the proper time interval!
Failure to complete the appropriate Maintenance checklists at the proper time intervals will cause damage to the Articulator, unsafe operating conditions, and substandard performance! Warranty issues are dependent upon proper maintenance!

ALWAYS engage BOTH deck lift safety chains and wing lift safety pin when performing maintenance on the mower deck.

Before doing maintenance on the Model 425EFDW Articulator, engage the following safety features: To engage the safety chains simply lift the arms to their maximum height and lock into position by inserting the pins through the chain link and the latching plates. The chains are located on the front of the deck latch mount bar. Raise the left wing deck to the full up position and insert the clevis pin into the half-moon plates located on the deck lift arm. Lower the arm so that the full weight of the wing deck is resting on the clevis pin. The clevis pin used in this application is located above the wing deck cylinder. This will allow for easy and safe transport over curbs and other obstructions, as well as extending the overall life of the Articulator. Review the tractor manual for proper lift arm operation.

Along with completing the Pre-Operation Equipment Inspection Checklist each time you operate the Articulator, complete the following Maintenance Checklists at the indicated time intervals.

5.1 Every 8 Operating Hours

- Complete the Pre-Operation Equipment Inspection Checklist.
- Grease all grease zerks.
- Inspect the spindle bearing grease seals (under each deck) for grease leakage or improper seating.
- Lubricate all joints and moving parts which are not equipped with grease fittings. Motorcycle oil or WD-40 is recommended for these areas.
- Verify proper installation, operation, and flow of grass chute.
- Inspect entire Articulator for loose or entangled parts, debris, obstructions, neglected tools, or any other possible safety hazards, equipment hazards or projec-
Maintenance

5 Every 25 Operating Hours

- Perform the appropriate maintenance procedures listed in your tractor manual.
- Retighten all gauge wheels to reset the bearing loads. (Wheels should have no side to side play with minimal resistance)

5.2 Every 25 Operating Hours

- Grease all wheel hubs.
- Refer to the Maintence Chart, Section 5.6
- Every 50 Operating Hours
- Grease all blade spindle housings.
- Inspect all bronze bushings for wear.
- Inspect all wheel bearings for wear, damage, debris, and proper installation.
- Clean the gauge wheels.
- Refer to the Maintence Chart, Section 5.6
- Check and clean if necessary any debris that may have accumulated during operation.

5.3 Every 100 Operating Hours.

- Clean the gauge wheels.
- Refer to the Maintence Chart, Section 5.6

5.4 Every 500 Operating Hours

- Inspect all blade spindle bearings for wear or damage. Replace if needed.
- Re-Pack all wheel bearings. Replace if needed.
- Inspect all component parts and wear points. Repair or replace any worn, damaged, or missing parts.
- Refer to the Maintence Chart, Section 5.6
## 5.5 425EFDW Articulator Maintenance Chart

<table>
<thead>
<tr>
<th>Maintenance Task</th>
<th>Every 8 Hours</th>
<th>Every 25 Hours</th>
<th>Every 50 Hours</th>
<th>Every 500 Hours</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete the Pre-Operation Equipment Inspection Checklist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grease All Grease Zerks</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Inspect All Blade Spindle Bearing Grease Seals for Grease Leakage or Improper Seating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lubricate All Joints &amp; Moving Parts Not Equipped with Grease Zerks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verify Proper Installation, Operation, &amp; Flow of Grass Chute</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspect Entire Articulator for Loose or Entangle Parts, Debris, Obstructions, Neglected Tools, &amp; Other Hazards</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Verify That All Hardware is Securely Fastened &amp; Good Condition</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Perform the Appropriate Maintenance Procedures Listed in Your Tractor Manual</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Retighten all gauge wheels to reset the bearing loads.</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Complete the 8-Hour Maintenance Schedule Checklist</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grease All Wheel Hubs</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete the 8-Hour &amp; 25-Hour Maintenance Checklists</td>
<td></td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Grease All Blade Spindle Bearing Housings</td>
<td></td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Inspect All Bronze Bushings</td>
<td></td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Inspect All Wheel Bearings for Wear, Damage, Debris, &amp; Proper Installation</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Clean the gauge wheels</td>
<td></td>
<td></td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Inspect All Blade Spindle Bearings for Wear, Damage, Debris, &amp; Proper Installation</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Re-pack All Wheel Bearings</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Inspect All Component Parts &amp; Wear Points</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Complete the 8-Hour, 25-Hour, &amp; 50-Hour Maintenance Checklists</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete the 8-Hour, 25-Hour, 50-Hour, &amp; 500-Hour Maintenance Checklists</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>✔️</td>
</tr>
<tr>
<td>Go to <a href="http://www.lastec.com">www.lastec.com</a> for latest changes in this manual.</td>
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</table>
## Model 425EFDW Articulator Specifications

### 5.6 Model 425EFDW Articulator Specifications

<table>
<thead>
<tr>
<th>Mower Deck</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cut Width</td>
<td>96&quot;</td>
</tr>
<tr>
<td>Mower Deck Configuration</td>
<td>(4) 25” Articulating Mower Decks</td>
</tr>
<tr>
<td>Blades</td>
<td>(4) 25&quot;L x 2 1/2&quot;W x 1/4&quot;T High-Lift</td>
</tr>
<tr>
<td>Blade Tip Speed</td>
<td>Max 17,000 FPM</td>
</tr>
<tr>
<td>Mower Deck Height Range</td>
<td>1” to 4 3/4”</td>
</tr>
<tr>
<td>Gross Weight</td>
<td>690 Lb</td>
</tr>
<tr>
<td>Operating Environment</td>
<td>Outdoor Use Only</td>
</tr>
<tr>
<td>Gauge Wheels</td>
<td>(10) 9” x 3” Foam Filled</td>
</tr>
<tr>
<td>Deck E1 Belt</td>
<td>Goodyear Insta-Power 85890</td>
</tr>
<tr>
<td>Deck E2 Belt (Deck Drive)</td>
<td>(2) Goodyear Insta-Power 85430</td>
</tr>
<tr>
<td>Deck E3 Belt</td>
<td>Goodyear Insta-Power 85870</td>
</tr>
<tr>
<td>Deck E4 Belt</td>
<td>Goodyear Insta-Power 85890</td>
</tr>
</tbody>
</table>

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